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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,778	08/25/2003	Toshio Nagashima	2003_1050A	1086
513	7590	08/17/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			THOMAS, DAVID B	
2033 K STREET N. W.				
SUITE 800			ART UNIT	
WASHINGTON, DC 20006-1021			PAPER NUMBER	
			3723	

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/646,778	Applicant(s) NAGASHIMA, TOSHIO <i>en</i>	
	Examiner David B. Thomas	Art Unit 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 16-23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 16-23 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 16-23 are directed to a process for using the apparatus, e.g. the polishing and cleaning device, and as such fail to further limit the apparatus.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 16, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Jones et al. (6,328,640).

Jones et al. ('640) disclose a polishing and cleaning compound system constituted of at least a polishing device unit for polishing a thin disc-shaped work piece, a cleaning device unit arranged in series to said polishing device and for cleaning said work piece polished by said polishing device unit and a transporting means for transporting said work piece from a container in which a plurality of said work pieces are installed to said polishing device unit and said cleaning device unit in turn, characterized in that: said polishing device unit comprises at least: a pair of cylindrical polishing tools,

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each of which has a polishing cloth; at least one roller for rotation which is arranged above said cylindrical polishing tools, which limits an upper position of said work piece and which makes said work piece rotate in its axis; a first holding means for vertically gripping and holding said work piece transported from said container in which the plurality of said work pieces are installed in turn; and a polishing means for making said work piece held by said first holding means rotate in its axis by said roller for rotation and for making the pair of said cylindrical polishing tools rotate so as to pull said work piece up; wherein: during said cylindrical polishing tools are driven to said work piece, a polishing process in which abrasive is poured to said cylindrical polishing tools and a cleaning process in which washing water is poured to said cylindrical polishing tools are carried out in series; and, wherein: said polishing process is carried out by pouring the abrasive to said cylindrical polishing tools, and said cleaning process is carried out by pouring the washing water to said cylindrical polishing tools.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-15, 17-19, and 21-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Jones et al. ('640), as applied to claims 1, 16, and 20 above, in view of Kobayashi et al. (6,488,573).

Jones et al. ('640), as applied to claims 1, 16, and 20 above, disclose the claimed

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invention, further including the cleaning device as claimed including translating the wafer up and down such that the polishing tools can pass through a center of the wafer, supplying an abrasive slurry for the polishing tools and supplying washing water for the cleaning tools. Jones et al. ('640) further disclose that the wafer processing devices may be separate units wherein, one unit is used for polishing, and another unit is used for cleaning, wherein the wafer is transferred from the polishing unit to the cleaning unit, or vice versa, or a single unit may provide polishing, via a first set of polishing cylinders, and cleaning via brush cylinders. Thus, Jones et al. ('640) disclose the claimed invention except for a circular transport means for transferring the wafer between polishing and cleaning units. Kobayashi et al. ('573) disclose a polishing apparatus for polishing and cleaning work pieces. Kobayashi et al. ('573) teach transferring the work pieces between polishing stations and cleaning stations via a circular transport means. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the layout of the polishing and cleaning system of Jones et al. ('640) by arranging the polishing and cleaning units in a circular manner, and providing a circular transport means for transferring the work piece from one unit to another, such as the system as taught by Kobayashi et al. ('573), wherein such a layout for a polishing and cleaning system allows a plurality of processes to be efficiently carried out in a system that does not take up much space.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Aoki et al., de Larios et al., Farber et al., Frost, Frost et al.,

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Gonzalez-Martin et al., Jairath, Krusell et al., Kunisawa et al., Maekawa et al., Mikhaylichenko et al., Miyashita et al., Ono et al., Ravkin et al., Svirchevski et al., and Tanaka each disclose wafer processing systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David B. Thomas whose telephone number is (703) 308-4250. The examiner can normally be reached on 7-4 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on (703) 308-2687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


dbt


David B. Thomas
Patent Examiner
Art Unit 3723